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<u>L3</u>	L2 same human	65	<u>L3</u>
<u>L2</u>	guanylyl cyclase	339	<u>L2</u>
<u>L1</u>	human guanylyl cyclase	0	<u>L1</u>

END OF SEARCH HISTORY

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 12 of 12 returned.**☐ 1. Document ID: US 20020155119 A1

L4: Entry 1 of 12

File: PGPB

Oct 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020155119

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020155119 A1

TITLE: Isolation and use of fetal urogenital sinus expressed sequences

PUBLICATION-DATE: October 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Sikes, Robert A.	Gordonsville	VA	US	
Chung, Leland W.K.	Lovingston	VA	US	
Kim, Jin Hee	Santa Monica	CA	US	
Fasciana, Claudia	Rotterdam		NL	
Trapman, Jan	Mijnsheerenland		NL	

US-CL-CURRENT: [424/185.1](#); [435/320.1](#); [435/325](#); [435/6](#); [435/69.1](#); [530/350](#); [536/23.5](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw Desc	Image
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☐ 2. Document ID: US 6518013 B1

L4: Entry 2 of 12

File: USPT

Feb 11, 2003

US-PAT-NO: 6518013

DOCUMENT-IDENTIFIER: US 6518013 B1

TITLE: Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw Desc	Image
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☐ 3. Document ID: US 6500938 B1

L4: Entry 3 of 12

File: USPT

Dec 31, 2002

US-PAT-NO: 6500938

DOCUMENT-IDENTIFIER: US 6500938 B1

TITLE: Composition for the detection of signaling pathway gene expression

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw Desc	Image
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☐ 4. Document ID: US 6479055 B1

L4: Entry 4 of 12

File: USPT

Nov 12, 2002

US-PAT-NO: 6479055

DOCUMENT-IDENTIFIER: US 6479055 B1

TITLE: Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc	Image
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☐ 5. Document ID: US 6335170 B1

L4: Entry 5 of 12

File: USPT

Jan 1, 2002

US-PAT-NO: 6335170

DOCUMENT-IDENTIFIER: US 6335170 B1

TITLE: Gene expression in bladder tumors

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc	Image
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☐ 6. Document ID: US 6228983 B1

L4: Entry 6 of 12

File: USPT

May 8, 2001

US-PAT-NO: 6228983

DOCUMENT-IDENTIFIER: US 6228983 B1

**** See image for Certificate of Correction ****

TITLE: Human respiratory syncytial virus peptides with antifusogenic and antiviral activities

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC	Draw Desc	Image
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☐ 7. Document ID: US 6093794 A

L4: Entry 7 of 12

File: USPT

Jul 25, 2000

US-PAT-NO: 6093794

DOCUMENT-IDENTIFIER: US 6093794 A

TITLE: Isolated peptides derived from the Epstein-Barr virus containing fusion inhibitory domains

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC	Draw Desc	Image
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☐ 8. Document ID: US 6068973 A

L4: Entry 8 of 12

File: USPT

May 30, 2000

US-PAT-NO: 6068973

DOCUMENT-IDENTIFIER: US 6068973 A

TITLE: Methods for inhibition of membrane fusion-associated events, including influenza virus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 9. Document ID: US 6060065 A

L4: Entry 9 of 12

File: USPT

May 9, 2000

US-PAT-NO: 6060065

DOCUMENT-IDENTIFIER: US 6060065 A

TITLE: Compositions for inhibition of membrane fusion-associated events, including influenza virus transmission

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 10. Document ID: US 6054265 A

L4: Entry 10 of 12

File: USPT

Apr 25, 2000

US-PAT-NO: 6054265

DOCUMENT-IDENTIFIER: US 6054265 A

TITLE: Screening assays for compounds that inhibit membrane fusion-associated events

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 11. Document ID: US 6017536 A

L4: Entry 11 of 12

File: USPT

Jan 25, 2000

US-PAT-NO: 6017536

DOCUMENT-IDENTIFIER: US 6017536 A

TITLE: Simian immunodeficiency virus peptides with antifusogenic and antiviral activities

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 12. Document ID: US 6013263 A

L4: Entry 12 of 12

File: USPT

Jan 11, 2000

US-PAT-NO: 6013263

DOCUMENT-IDENTIFIER: US 6013263 A

TITLE: Measles virus peptides with antifusogenic and antiviral activities

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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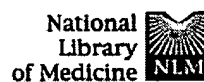
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Field: Title, Limits: Publication Date from 1970 to 1999

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Entrez
PubMed☐ 1: [Ellis JL.](#)[Related Articles, Links](#)

Role of soluble guanylyl cyclase in the relaxations to a nitric oxide donor and to nonadrenergic nerve stimulation in guinea pig trachea and human bronchus. J Pharmacol Exp Ther. 1997 Mar;280(3):1215-8.
PMID: 9067306 [PubMed - indexed for MEDLINE]

PubMed
Services☐ 2: [Yu F, Warburton D, Wellington S, Danziger RS.](#)[Related Articles, Links](#)

Assignment of GUCIA2, the gene coding for the alpha 2 subunit of soluble guanylyl cyclase, to position 11q21-q22 on human chromosome 11. Genomics. 1996 Apr 15;33(2):334-6. No abstract available.
PMID: 8660992 [PubMed - indexed for MEDLINE]

☐ 3: [Dizhoor AM, Lowe DG, Olshevskaya EV, Laura RP, Hurley JB.](#)[Related Articles, Links](#)

The human photoreceptor membrane guanylyl cyclase, RetGC, is present in outer segments and is regulated by calcium and a soluble activator. Neuron. 1994 Jun;12(6):1345-52.
PMID: 7912093 [PubMed - indexed for MEDLINE]

Related
Resources☐ 4: [Danziger RS, Star RA, Matsumoto S, Coca-Prados M, DeSantis L, Pang IH.](#)[Related Articles, Links](#)

Characterization of soluble guanylyl cyclase in transformed human non-pigmented epithelial cells. Biochem Biophys Res Commun. 1993 Sep 15;195(2):958-62.
PMID: 8103987 [PubMed - indexed for MEDLINE]

☐ 5: [Giuli G, Roechel N, Scholl U, Mattei MG, Guellaen G.](#)[Related Articles, Links](#)

Colocalization of the genes coding for the alpha 3 and beta 3 subunits of soluble guanylyl cyclase to human chromosome 4 at q31.3-q33. Hum Genet. 1993 Apr;91(3):257-60.
PMID: 8097486 [PubMed - indexed for MEDLINE]

☐ 6: [Giuli G, Scholl U, Bulle F, Guellaen G.](#)[Related Articles, Links](#)

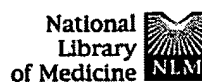
Molecular cloning of the cDNAs coding for the two subunits of soluble guanylyl cyclase from human brain. FEBS Lett. 1992 Jun 8;304(1):83-8.
PMID: 1352257 [PubMed - indexed for MEDLINE]

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☐ 1: FEBS Lett. 1992 Jun 8;304(1):83-8.

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Molecular cloning of the cDNAs coding for the two subunits of soluble guanylyl cyclase from human brain.

Giuli G, Scholl U, Bulle F, Guellaen G.

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Unite INSERM 99, Hopital Henri Mondor, Creteil, France.

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Complementary DNA clones corresponding to the 70 and 82 kDa subunits of soluble guanylyl cyclase from human adult brain have been isolated and sequenced. Their respective open reading frames correspond to 619 amino acids (M(r) 70,469) and 717 amino acids (M(r) 81,324). Southern blots of human genomic DNA using these clones as probes give patterns which might be compatible with the presence of more than one copy per gene, or pseudogenes, for each subunit in the human genome. Comparison of the protein sequence of the large subunit from adult brain with the subunit cloned from human fetal brain (Harteneck, C., Wedel, B., Koesling, D., Malekewitz, J., Bohme, E., and Schultz, G. (1991) FEBS Lett. 292, 217-222) revealed only 34% homology. This result demonstrates the existence of a novel large subunit isoform for soluble guanylyl cyclase in human tissues.

PMID: 1352257 [PubMed - indexed for MEDLINE]

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CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
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QUE GUANYLYL CYCLASE

L1

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PASCAL, BIOTECHNO, LIFESCI, USPATFULL' ENTERED AT 11:52:11 ON 26 AUG 2003

L2 3610 S L1 AND HUMAN
L3 1370 S L2 AND (ISOLAT? OR CHARACTERI? OR PURIF?)
L4 112 S L3 AND (ALPHA 1 OR BETA 1)
L5 71 DUP REM L4 (41 DUPLICATES REMOVED)

L5 ANSWER 61 OF 71 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
 ACCESSION NUMBER: 1999331767 EMBASE
 TITLE: Treatment of perioperative hypertension.
 AUTHOR: Levy J.H.
 CORPORATE SOURCE: Dr. J.H. Levy, Department of Anesthesiology, Emory
 University Hospital, 1364 Clifton Road, NE, Atlanta, GA
 30322, United States
 SOURCE: Anesthesiology Clinics of North America, (1999) 17/3
 (567-579).
 Refs: 122
 ISSN: 0889-8537 CODEN: ACNAEH
 COUNTRY: United States
 DOCUMENT TYPE: Journal; General Review
 FILE SEGMENT: 006 Internal Medicine
 024 Anesthesiology
 037 Drug Literature Index
 038 Adverse Reactions Titles
 LANGUAGE: English
 SUMMARY LANGUAGE: English

AB Perioperative hypertension during cardiac or noncardiac surgery is a unique clinical problem characterized by systemic vasoconstriction often with intravascular hypovolemia that usually requires acute short-term intravenous therapy. .beta.-Adrenergic blockers are important first-line drugs for the patient with hypertension and tachycardia, although .beta.-blockers can have potential adverse side effects. The short-acting .beta.-blocker esmolol because of its titratability is a firstline .beta.-blocker for perioperative use. The CCBs represent important drugs with arterial vasodilating actions, and the new intravenous dihydropyridine compounds are especially promising because they have no negative inotropic effects or effects on atrioventricular node conduction. Nicardipine is the first intravenous dihydropyridine CCB currently available for perioperative hypertension in the United States, and clevidipine is currently under investigation. The following list summarizes therapeutic approaches to perioperative systemic hypertension: .alpha.1- Adrenergic receptor blockade (phentolamine); ACE inhibition (enalaprilat); .beta.-Adrenergic blockade (esmolol, propranolol, metoprolol, atenolol); Calcium- channel blockade (nicardipine, isradipine, clevidipine); Dopamine-1 receptor stimulation (fenoldopam); Vascular guanylyl cyclase stimulation (nitrovasodilators: nitroprusside, nitroglycerin); Vascular adenylyl cyclase stimulation (pulmonary hypertension: prostacyclin, prostaglandin E1).

L5 ANSWER 62 OF 71 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V. on STN
 ACCESSION NUMBER: 1999063470 ESBIOBASE
 TITLE: Muscarinic and .beta.-adrenergic regulation of heart rate, force of contraction and calcium current is preserved in mice lacking endothelial nitric oxide synthase
 AUTHOR: Vandecasteele G.; Eschenhagen T.; Scholz H.; Stein B.; Verde I.; Fischmeister R.
 CORPORATE SOURCE: R. Fischmeister, Lab. Cardiol., Cell. et Moleculaire, INSERM U-446, Universite de Paris-Sud, F-92296 Chatenay-Malabry, France.
 E-mail: Fisch@vjf.inserm.fr
 SOURCE: Nature Medicine, (1999), 5/3 (331-334), 20 reference(s)
 CODEN: NAMEFI ISSN: 1078-8956
 DOCUMENT TYPE: Journal; Article
 COUNTRY: United States
 LANGUAGE: English
 SUMMARY LANGUAGE: English

AB Nitric oxide (NO) is an ubiquitous signaling molecule produced from L-arginine by NO synthase (NOS). In the vasculature, NO mediates parasympathetic endothelium-dependent vasodilation. NO may also mediate the parasympathetic control of myocardial function. This is supported by the observations that NOS3, the endothelial constitutive NOS, is expressed in normal cardiac myocytes from rodents and human, and NOS and/or **guanylyl cyclase** inhibitors antagonize the effect of muscarinic agonists on heart rate, atrio-ventricular conduction, contractility and L-type calcium current. Here we examine the autonomic regulation of the heart in genetically engineered mice deficient in NOS3 (NOS3-KO) (ref. 8). We show that the chronotropic and inotropic responses to both .beta.-adrenergic and muscarinic agonists were unaltered in **isolated** cardiac tissue preparations from NOS3-KO mice, although these mice have a defective parasympathetic regulation of vascular tone. Similarly, .beta.-adrenergic stimulation and muscarinic inhibition of the calcium current did not differ in cardiac myocytes from NOS3-KO mice and those from wild-type mice. RT-PCR did not demonstrate upregulation of other NOS isoforms. Similarly, G(i)/G(o) proteins and muscarinic receptor density were unaltered. These data refute the idea that NOS3 is obligatory for the normal autonomic control of cardiac muscle function.

L5 ANSWER 63 OF 71 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 6
ACCESSION NUMBER: 1998:102849 SCISEARCH
THE GENUINE ARTICLE: YT669
TITLE: **Characterization of NS 2028 as a specific inhibitor of soluble guanylyl cyclase**
AUTHOR: Olesen S P (Reprint); Drejer J; Axelsson O; Moldt P; Bang L; NielsenKudsk J E; Busse R; Mulsch A
CORPORATE SOURCE: NEUROSEARCH, 26B SMEDLAND, DK-2600 GLOSTRUP, DENMARK (Reprint); RIGSHOSP, DEPT MED B, DK-2100 COPENHAGEN O, DENMARK; UNIV FRANKFURT KLINIKUM, ZENTRUM PHYSIOL, D-60590 FRANKFURT, GERMANY
COUNTRY OF AUTHOR: DENMARK; GERMANY
SOURCE: BRITISH JOURNAL OF PHARMACOLOGY, (JAN 1998) Vol. 123, No. 2, pp. 299-309.
Publisher: STOCKTON PRESS, HOUNDMILLS, BASINGSTOKE, HAMPSHIRE, ENGLAND RG21 6XS.
ISSN: 0007-1188.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 35

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB 1 The haeme-containing soluble **guanylyl cyclase** (**alpha(1) beta(1)**-heterodimer) is a major intracellular receptor and effector for nitric oxide (NO) and carbon monoxide (GO) and mediates many of their biological actions by increasing cyclic GMP. We have synthesized new oxadiazolo-benz-oxazins and have assessed their inhibitory actions on **guanylyl cyclase** activity in vitro, on the formation of cyclic GMP in cultured cells and on the NO-dependent relaxation of vascular and non-vascular smooth muscle.

2 Soluble **guanylyl cyclase**, purified to homogeneity from bovine lung, was inhibited by 4H-8-bromo-1,2,4-oxadiazolo(3,4-d)benz(b)(1,4)oxazin-1-one (NS 2028) in a concentration-dependent and irreversible manner (IC50 30 nM for basal and 200 nM for NO-stimulated enzyme activity). Evaluation of the inhibition kinetics according to Kitz & Wilson yielded a value of 8 nM for K-i, the equilibrium constant describing the initial reversible reaction between inhibitor and enzyme, and 0.2 min(-1) for the rate constant k3 of the subsequent irreversible inhibition. Inhibition was accompanied by a shift in the solet absorption maximum of the enzyme's haem cofactor from 430 to 390 nm.

3 S-nitroso-glutathione-enhanced soluble **guanylyl**

cyclase activity in homogenates of mouse cerebellum was inhibited by NS 2028 (IC₅₀ 17 nM) and by 17 structural analogues in a similar manner, albeit with different potency, depending on the type of substitution at positions 1, 7 and 8 of the benzoxazin structure. Small electronegative ligands such as Br and Cl at position 7 or 8 increased and substitution of the oxygen at position 1 by -S-, -NH- or -CH₂- decreased the inhibition.

4 In tissue slices prepared from mouse cerebellum, neuronal NO synthase-dependent activation of soluble **guanylyl cyclase** by the glutamate receptor agonist N-methyl-D-aspartate was inhibited by NS 2028 (IC₅₀ 20 nM) and by two of its analogues. Similarly, 3-morpholino-sydnonimine (SIN-1)-elicited formation of cyclic GMP in human cultured umbilical vein endothelial cells was inhibited by NS 2028 (IC₅₀ 30 nM).

5 In prostaglandin F-2 alpha-constricted, endothelium-intact porcine coronary arteries NS 2028 elicited a concentration-dependent increase (65%) in contractile tone (EC₅₀ 170 nM), which was abolished by removal of the endothelium. NS 2028 (1 μM) suppressed the relaxant response to nitroglycerin from 88.3+/-2.1 to 26.8+/-6.4% and induced a 9 fold rightward shift (EC₅₀ 15 μM) of the concentration-relaxation response curve to nitroglycerin. It abolished the relaxation to sodium nitroprusside (1 μM), but did not affect the vasorelaxation to the K-ATP channel opener cromakalim. Approximately 50% of the relaxant response to sodium nitroprusside was recovered after 2 h washout of NS 2028.

6 In phenylephrine-precontracted, endothelium-denuded aorta of the rabbit NS 2028 (1 μM) did not affect relaxant responses to atrial natriuretic factor, an activator of particulate **guanylyl cyclase**, or forskolin, an activator of adenylyl cyclase.

7 NO-dependent relaxant responses in non-vascular smooth muscle were also inhibited by NS 2028. The nitroglycerin-induced relaxation of guinea-pig trachea precontracted by histamine was fully inhibited by NS 2028 (1 μM), whereas the relaxations to terbutaline, theophylline and vasoactive intestinal polypeptide (VIP) were not affected. The relaxant responses to electrical field stimulation of non-adrenergic, non-cholinergic nerves in the same tissue were attenuated by 50% in the presence of NS 2028 (1 μM).

8 NS 2028 and its analogues, one of which is the previously characterized 1H-[1,2,4]oxadiazolo[4,3, a]quinoxalin-1-one (ODQ), appear to be potent and specific inhibitors of soluble **guanylyl cyclase** present in various cell types. Oxidation and/or a change in the coordination of the haeme-iron of **guanylyl cyclase** is a likely inhibitory mechanism.

L5 ANSWER 64 OF 71 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 7
ACCESSION NUMBER: 1998:818230 SCISEARCH
THE GENUINE ARTICLE: 130KM
TITLE: Functional properties of a naturally occurring isoform of soluble **guanylyl cyclase**
AUTHOR: Russwurm M; Behrends S; Harteneck C; Koesling D (Reprint)
CORPORATE SOURCE: FREE UNIV BERLIN, INST PHARMAKOL, THIELALLEE 69-73, D-14195 BERLIN, GERMANY (Reprint); FREE UNIV BERLIN, INST PHARMAKOL, D-14195 BERLIN, GERMANY
COUNTRY OF AUTHOR: GERMANY
SOURCE: BIOCHEMICAL JOURNAL, (1 OCT 1998) Vol. 335, Part 1, pp. 125-130.
Publisher: PORTLAND PRESS, 59 PORTLAND PLACE, LONDON W1N 3AJ, ENGLAND.
ISSN: 0264-6021.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 22
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB Soluble **guanylyl cyclase** (sGC), the target enzyme

of the signalling molecule NO, contains one prosthetic haem group and consists of an alpha and a beta subunit. So far, only the **alpha(1)beta(1)** heterodimer has been shown to exist in different cells and tissues, and most biochemical studies of sGC have been performed with the **alpha(1)beta(1)** heterodimer. Here we demonstrate for the first time the natural occurrence of the **alpha(2)** subunit on the protein lever. The **alpha(2)** subunit co-precipitated with the **beta(1)** subunit from human placenta, showing the existence of the **alpha(2)beta(1)** isoform in vivo. The new enzyme was expressed in and purified from cells from the *Spodoptera frugiperda* ovary cell line Sf 9. Spectral analysis showed that the **alpha(2)beta(1)** heterodimer contains a prosthetic haem group revealing the same characteristics as the haem in the **alpha(1)beta(1)** form. The kinetic properties of both isoforms and sensitivity towards NO were indistinguishable. H-1-[1,2,4]oxadiazolo[4,3-a]quinoxalin-1-one (ODQ), a selective inhibitor of sGC, abolished NO-stimulated activity of both heterodimers. The new NO-independent activator, 3-(5'-hydroxymethyl-2'-furyl)-1-benzyl indazole (YC-1), increased the maximal NO-stimulated activity of the new isoform, caused a leftward-shift in the NO concentration-response curve and turned CO into an effective activator, as it did for the **alpha(1)beta(1)** heterodimer (200-fold activation). In summary, the differences in primary structure of both subunits are contrasted by their functional similarity. Further studies will be needed to elucidate the physiological purpose of the new isoform.

L5 ANSWER 65 OF 71 USPATFULL on STN

ACCESSION NUMBER: 97:114932 USPATFULL

TITLE: Suppression of nitric oxide production by osteopontin

INVENTOR(S): Denhardt, David T., Bridgewater, NJ, United States

Hwang, Shiaw-Min, Piscataway, NJ, United States

Heck, Diane Elaine, Rumson, NJ, United States

Lopez, Cecilia Ang, North Brunswick, NJ, United States

Laskin, Debra L., Basking Ridge, NJ, United States

Laskin, Jeffrey D., Piscataway, NJ, United States

PATENT ASSIGNEE(S): Rutgers University, Piscataway, NJ, United States (U.S. corporation)

University of Medicine & Dentistry of NJ, Newark, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5695761		19971209
APPLICATION INFO.:	US 1993-173116		19931223 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Hutzell, Paula K.		
ASSISTANT EXAMINER:	Minnifield, N. M.		
LEGAL REPRESENTATIVE:	Klauber & Jackson		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1552		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for inhibition of the vasoactive and signal transduction agent nitric oxide (NO), and to therapeutic treatment of diseases or disorders that involve inappropriate or detrimental NO activity. The invention particularly relates to modulation of kidney function. In specific embodiments, osteopontin and a 20-amino acid fragment of osteopontin that contains an Arg-Gly-Asp sequence suppress expression of inducible NO synthase mRNA, and osteopontin suppresses the activity of constitutive NO synthase.

L5 ANSWER 66 OF 71 USPATFULL on STN

ACCESSION NUMBER: 97:78170 USPATFULL
TITLE: Compositions and methods for cancer immunotherapy
INVENTOR(S): Barber, Jack R., San Diego, CA, United States
Jolly, Douglas J., Leucadia, CA, United States
Respass, James G., San Diego, CA, United States
PATENT ASSIGNEE(S): Chiron Viagene, Inc., San Diego, CA, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5662896		19970902
APPLICATION INFO.:	US 1993-32846		19930317 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-965084, filed on 22 Oct 1992, now abandoned which is a continuation of Ser. No. US 1990-586603, filed on 21 Sep 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-565606, filed on 10 Aug 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-395932, filed on 18 Aug 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-170515, filed on 21 Mar 1988, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Fleisher, Mindy		
ASSISTANT EXAMINER:	Railey, II, Johnny F.		
LEGAL REPRESENTATIVE:	Seed & Berry, Kruse, Norman J., Blackburn, Robert P.		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	34 Drawing Figure(s); 22 Drawing Page(s)		
LINE COUNT:	2662		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB The present invention provides methods for inhibiting the growth of selected tumors utilizing recombinant viral vectors. Briefly, within one aspect of the present invention, a method for inhibiting the growth of a selected tumor is provided comprising the step of directly administering to a warm-blooded animal a vector construct which directs the expression of at least one anti-tumor agent, such that the growth of said tumor is inhibited. Representative examples of anti-tumor agents include immune activators and tumor proliferation inhibitors.

L5 ANSWER 67 OF 71 USPATFULL on STN

ACCESSION NUMBER: 97:20543 USPATFULL
TITLE: Use of .alpha..sub.1A -selective adrenoceptor agonists for the treatment of urinary incontinence
INVENTOR(S): Craig, Douglas A., Fair Lawn, NJ, United States
Forray, Carlos C., Paramus, NJ, United States
Gluchowski, Charles, Wayne, NJ, United States
Branchek, Theresa A., Teaneck, NJ, United States
PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corporation, Paramus, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5610174		19970311
APPLICATION INFO.:	US 1995-459410		19950602 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Jordan, Kimberly		
ASSISTANT EXAMINER:	Jarvis, William R. A.		
LEGAL REPRESENTATIVE:	White, John P.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 6 Drawing Page(s)		

LINE COUNT: 1626

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a method of treating urinary incontinence in a subject which comprises administering to the subject a therapeutically effective amount of a compound having the following structure: ##STR1## wherein each of the substituents for the compound is as defined in the specification.

L5 ANSWER 68 OF 71 LIFESCI COPYRIGHT 2003 CSA on STN

ACCESSION NUMBER: 96:100765 LIFESCI

TITLE: Assignment of GUCIA2, the gene coding for the alpha 2 subunit of soluble **guanylyl cyclase**, to position 11q21-q22 on **human** chromosome 11

AUTHOR: Yu, F.; Warburton, D.; Wellington, S.; Danziger, R.S.*

CORPORATE SOURCE: Div. Cardiology, Coll. Physicians and Surgeons Columbia Univ., 630 W. 168th St., New York, NY 10032, USA

SOURCE: GENOMICS, (1996) vol. 33, no. 2, pp. 334-336.

ISSN: 0888-7543.

DOCUMENT TYPE: Journal

FILE SEGMENT: G

LANGUAGE: English

AB Soluble **guanylyl cyclases**, which are activated by nitric oxide (NO), are obligate heterodimers (alpha / beta) with an associated heme group for binding NO. Two isoforms of each subunit, i.e., **alpha 1**, **alpha 2**, **beta 1**, and **beta 2**, have been **characterized**. The **alpha 1** (82 kDa) and **beta 1** (73 kDa) subunits were first **purified** as a heterodimer from bovine lung and subsequently cloned from rat, bovine, and **human** lungs. A second isoform of the beta subunit (beta 2) was cloned from the rat kidney. More recently, a second isoform of the alpha subunit (alpha 2) was cloned from **human** brain. The alpha subunits have been shown to be interchangeable such that heterodimers consisting of **alpha 1/ beta 1** and **alpha 2/ beta 1** subunits are active, but not those of **alpha 1/ alpha 2**. Furthermore, the available data suggest that there is tissue-specific expression of the subunit isoforms, i.e., lung tissue contains **alpha 1** and **beta 1**, the cortical collecting duct of the kidney contains **alpha 1** and **beta 2**, and the **alpha 1**, **beta 1**, and **beta 2** subunit isoforms predominate in the renal vasculature. The genes coding for the **alpha 1** and **beta 1** subunits of soluble **guanylyl cyclase** (GUCIA3, GUCIB3) have been colocalized to the same **human** chromosome region, i.e., chromosome 4 at q31.3-q33. In the current study, we have shown that the gene for the alpha 2 subunit, GUCIA2, is located at 11q21-q22 on **human** chromosome 11.

L5 ANSWER 69 OF 71 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 8

ACCESSION NUMBER: 95:430966 SCISEARCH.

THE GENUINE ARTICLE: RE666

TITLE: 2 DROSOPHILA GENES THAT ENCODE THE ALPHA-SUBUNIT AND BETA-SUBUNIT OF THE BRAIN SOLUBLE **GUANYLYL CYCLASE**

AUTHOR: SHAH S; HYDE D R (Reprint)

CORPORATE SOURCE: UNIV NOTRE DAME, DEPT BIOL SCI, NOTRE DAME, IN, 46556 (Reprint); UNIV NOTRE DAME, DEPT BIOL SCI, NOTRE DAME, IN, 46556

COUNTRY OF AUTHOR: USA

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (23 JUN 1995) Vol. 270, No. 25, pp. 15368-15376.
ISSN: 0021-9258.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: ENGLISH
REFERENCE COUNT: 38

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We identified two *Drosophila* genes (*dgc alpha 1* and *dgc beta 1*) that encode the soluble **guanylyl cyclase** alpha and beta subunits, respectively. The putative *Dgc alpha 1* protein is 76 kDa, has 35% amino acid identity with previously **isolated** alpha subunits, and was immunolocalized to the adult retina, to the optic lobes, and throughout the brain neuropil. The *Dgc beta 1* protein is 86 kDa and exhibits 59% amino acid identity with the rat **beta 1** protein. However, the *Dgc beta 1* protein has an additional 118 amino acids inserted near the amino terminus, which makes it significantly larger than the rat **beta 1**. The *Dgc beta 1* protein was immunolocalized to the optic lobes and throughout the brain neuropil, with no detectable expression in the retina. The *Dgc alpha 1* and *Dgc beta 1* cDNAs were stably transfected into human kidney 293 cells. Expression of the individual subunits and mixing of the individually expressed subunits failed to generate significant **guanylyl cyclase** activity. Only coexpression of the subunits resulted in significant **guanylyl cyclase** activity. Our results indicate that *Dgc alpha 1* and *Dgc beta 1* are soluble **guanylyl cyclase** alpha and beta subunits that are capable of forming a functional **guanylyl cyclase** heterodimer.

L5 ANSWER 70 OF 71 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 9

ACCESSION NUMBER: 1993:504357 BIOSIS

DOCUMENT NUMBER: PREV199396128364

TITLE: **Characterization of soluble guanylyl cyclase** in transformed human non-pigmented epithelial cells.

AUTHOR(S): Danziger, Robert S. (1); Star, Robert A. (1); Matsumoto, Shun; Coca-Prados, Miguel; Desantis, Louis; Pang, Iok-Hou

CORPORATE SOURCE: (1) Dep. Internal Med., Univ. Texas Southeastern Med. Cent., Dallas, TX USA

SOURCE: Biochemical and Biophysical Research Communications, (1993) Vol. 195, No. 2, pp. 958-962.
ISSN: 0006-291X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Topical application of nitro vasodilators, such as sodium nitroprusside, reduces intraocular pressure. In brain and blood vessels, nitro vasodilators activate soluble **guanylyl cyclases**, producing cGMP. The location and molecular identity of ocular **guanylyl cyclases** are unknown. We studied transformed human non-pigmented ciliary epithelial cells, whose parental cells are responsible for the production of aqueous humor. Sodium nitroprusside increased cGMP 40 to 60 fold in a time and concentration dependent manner (EC-50 40 to 100 μ -M). Methylene blue inhibited this effect (IC-50 0.6 μ -M in the presence of 100 μ -M sodium nitroprusside). We also detected mRNA for the **alpha-1** and **beta-1**, but not the **beta-2**, subunit isoforms of soluble **guanylyl cyclase** in these cells by Northern blotting. We conclude that transformed non-pigmented epithelial cells contain an active heterodimeric soluble **guanylyl cyclase** composed of at least **alpha-1** and **beta-1** subunits.

L5 ANSWER 71 OF 71 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 10

ACCESSION NUMBER: 1993:70686 BIOSIS

DOCUMENT NUMBER: PREV199395035186

TITLE: **Characterization of soluble platelet guanylyl cyclase with peptide antibodies.**
AUTHOR(S): Guthmann, Florian; Mayer, Bernd; Koesling, Doris; Kukovetz, Walter R.; Boehme, Eycke (1)
CORPORATE SOURCE: (1) Institut fuer Pharmakologie, Freie Universitaet Berlin, Thielalle 67-73, W-1000 Berlin 33 Germany
SOURCE: Naunyn-Schmiedeberg's Archives of Pharmacology, (1992) Vol. 346, No. 5, pp. 537-541.
ISSN: 0028-1298.
DOCUMENT TYPE: Article
LANGUAGE: English

AB Soluble **guanylyl cyclase** partially purified from bovine and **human** platelets was characterized with antibodies raised against synthetic peptides corresponding to different sequences of the **alpha-1-** and **beta-1**-subunits of the bovine lung enzyme. On immunoblots, the platelet **guanylyl cyclase** was recognized by the four antisera used, with the exception of an antiserum against the C-terminus of the **beta-1**-subunit which did not react with the **human** platelet but with the bovine platelet **beta-1**-subunit. Furthermore the **human** platelet **beta-1**-subunit exhibited a slightly lower molecular mass than the bovine protein. The C-terminal antibodies precipitated native platelet and lung guanyly cyclase activity. In contrast an antibody against a peptide out of the putative catalytic domain, which is highly conserved between all **guanylyl cyclases** sequenced so far, did not precipitate native **guanylyl cyclase**, although it recognized both subunits on immunoblots, suggesting that the respective amino acid sequence is located in an inner site of the protein.